

**United States Department of Energy  
National Nuclear Security Administration**

**Distinguished Career  
Service Award**


Presented to:

**Calvin M. Hopper**

In recognition of his exemplary technical support to the Department of Energy in the formation, growth, and impact of the Nuclear Criticality Safety Program (NCSP). Mr. Hopper was a key architect of the initial NCSP implementation plan. A cornerstone of this initial NCSP plan was development of an approach to understand and quantify applicable ranges of experiments and data. Mr. Hopper's leadership and guidance in that programmatic area led to the development of the SCALE/TSUNAMI sensitivity/uncertainty software that is currently being applied to help guide the Department's selection and design of critical experiments to assure applicability to criticality safety needs. Mr. Hopper relied on his extensive expertise and operational experience in criticality safety and health physics to help structure the early organization of the NCSP technical program elements. He has served as a charter member of the Criticality Safety Support Group (CSSG), serving as Chair and Deputy Chair, advising the Department on all aspects of criticality safety. Mr. Hopper has consistently sought to have the NCSP focus on outcome-based results that would provide improved knowledge, information, and tools to support the criticality safety practitioner and impact improved safety and efficiency of operations. Recently, Mr. Hopper led the effort to define and implement the NCSP "hands-on" training program, having both experimental and classroom elements, for training and qualifying NCS specialists in the DOE complex. Mr. Hopper led a multi-laboratory team effort to develop and implement the initial two-week hands-on critical-experiment training course that continues to be taught at Los Alamos National Laboratory, Sandia National Laboratory and the Nevada National Security Site National Criticality Experiments Research Center.

Mr. Hopper's efforts outside of the NCSP have also impacted improved criticality safety throughout the DOE complex. He developed the Radiation Dose SlideRule for estimating neutron-gamma dose levels at variable distances from the locations of criticality accidents, and this popular tool continues to be widely used to support emergency preparedness and response operations throughout the U.S. Mr. Hopper has been a leader in the development and implementation of domestic and international consensus standards for nuclear criticality safety, serving as Secretary of ANS-8, Chair of Consensus Standards Committee N-16, and a US Technical Advisor ISO Technical Committee 85, Nuclear Energy.

Through his various support roles for the NCSP, Mr. Hopper's four decades of technical and applied criticality safety experience have made him an invaluable contributor to the NCSP and DOE mission and as an advisor to me in my role as the NCSP Manager. His accomplishments in the NCSP are greatly appreciated, and I wish him much success, joy and fulfillment throughout his life's new adventures and trust that our paths will cross again.



Dr. Jerry N. McKamy, Director  
Office of Environment, Safety and Health, NA-00-10  
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